

U.S. Patent Application Serial No. 10/530,412
Amendment filed March 10, 2006
Reply to OA dated December 19, 2005

AMENDMENTS TO THE CLAIMS:

Please amend claims 1 and 2, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): An agglomerate comprising fine primary particles of an inorganic compound except for silica, the agglomerate satisfying the following expressions (a) to (e):

- (a) $0.5 \leq dp_{50} \leq 20$ [μm]
- (b) $0 \leq \alpha \leq 2.5$ [-]
- (c) $30 \leq Sw$ [m^2/g]
- (d) $20 \leq St \leq 150$ [MPa] and
- (e) $200 \leq Sta \leq 600$ [MPa],

wherein

dp_{50} : the average particle diameter [μm] of the agglomerate measured by Microtrac-FRA, a laser analysis type particle size distribution measurement apparatus,

α : the value calculated by dividing the difference between the particle diameter d_{90} of cumulative 90% minus sieve particles of the agglomerate and the particle diameter d_{10} of cumulative 10% minus sieve particles of the agglomerate calculated by the Microtrac-FRA, a laser analysis type particle size distribution measurement apparatus by the average particle diameter dp_{50} according to the following equation:

U.S. Patent Application Serial No. **10/530,412**
Amendment filed March 10, 2006
Reply to OA dated December 19, 2005

$$\alpha = (d_{90} - d_{10})/dp_{50},$$

d_{90} : the particle diameter of cumulative 90% minus sieve particles of the agglomerate measured by the Microtrac-FRA, a laser analysis type particle size distribution measurement apparatus,

d_{10} : the particle diameter of cumulative 10% minus sieve particles of the agglomerate measured by the Microtrac-FRA, a laser analysis type particle size distribution measurement apparatus,

Sw : the BET specific surface area of the agglomerate [m^2/g],

St : the tensile strength [MPa] required to break the agglomerate with the particle diameter $4\mu m$, measured by a MCT-W500-J micro compression testing machine manufactured by Shimadzu Corporation under conditions of 9.8 mN in load and 0.892405 mN/sec in load speed, and

Sta : the tensile strength [MPa] required to break 30% of the particle diameter of the agglomerate with the particle diameter $4\mu m$, measured by a MCT-W500-J micro compression testing machine manufactured by Shimadzu Corporation under conditions of 9.8 mN in load and 0.892405 mN/sec in load speed.

Claim 2 (Currently amended): The agglomerate according to claim 1, wherein the agglomerate satisfies the solidified apparent density satisfies the following expression (f):

$$(f) \ 0.2 \leq \rho_{bp} \leq 0.8 \quad [g/cm^3],$$

wherein

U.S. Patent Application Serial No. 10/530,412
Amendment filed March 10, 2006
Reply to OA dated December 19, 2005

pbp: the solidified apparent density [g/cm^3] of the agglomerate powder measured by a powder tester manufactured by Hosokawa Micron Co., Ltd., based on the Carr Theory.

Claim 3 (Previously Presented): The agglomerate according to claim 1, wherein the agglomerate is surface-treated with at least one kind selected from aliphatic acids, alicyclic carboxylic acids, aromatic carboxylic acids, their sulfonic acids and resin acids, their metal salts, ammonium salts, amine salts, esters; aliphatic, alicyclic, and aromatic sulfonic acids; coupling agents; silicone oils; paraffin; copolymers of α,β -monoethylenically unsaturated carboxylic acids and monomers copolymerizable with α,β -monoethylenically unsaturated carboxylic acids, their metal salts ammonium salts, amine salts, esters; phosphoric acid esters; and industrial soaps.

Claim 4 (Previously Presented): The agglomerate according to claim 1, wherein the agglomerate comprises calcium carbonate.

Claim 5 (Previously Presented): A resin composition containing a resin mixed with the agglomerate according to claim 1.

Claim 6 (Original): The resin composition according to claim 5, wherein the resin is selected from polyolefin resins, polyester resins, polyamide resins, polyvinyl chloride resins, and biodegradable resins.

U.S. Patent Application Serial No. 10/530,412
Amendment filed March 10, 2006
Reply to OA dated December 19, 2005

Claim 7 (Previously Presented): The resin composition according to claim 5, wherein the resin composition is in the form of a film, a sheet or a fiber.

Claim 8 (Previously Presented): The agglomerate according to claim 2, wherein the agglomerate is surface-treated with at least one kind selected from aliphatic acids, alicyclic carboxylic acids, aromatic carboxylic acids, their sulfonic acids and resin acids, their metal salts, ammonium salts, amine salts, esters; aliphatic, alicyclic, and aromatic sulfonic acids; coupling agents; silicone oils; paraffin; copolymers of α,β -monoethylenically unsaturated carboxylic acids and monomers copolymerizable with α,β -monoethylenically unsaturated carboxylic acids, their metal salts ammonium salts, amine salts, esters; phosphoric acid esters; and industrial soaps.

Claim 9 (Previously Presented): The agglomerate according to claim 2, wherein the agglomerate comprises calcium carbonate.

Claim 10 (Previously Presented): The agglomerate according to claim 3, wherein the agglomerate comprises calcium carbonate.

Claim 11 (Previously Presented): A resin composition containing a resin mixed with the agglomerate according to claim 2.

U.S. Patent Application Serial No. 10/530,412
Amendment filed March 10, 2006
Reply to OA dated December 19, 2005

Claim 12 (Previously Presented): A resin composition containing a resin mixed with the agglomerate according to claim 3.

Claim 13 (Previously Presented): The resin composition according to claim 11, wherein the resin is selected from polyolefin resins, polyester resins, polyamide resins, polyvinyl chloride resins, and biodegradable resins.

Claim 14 (Previously Presented): The resin composition according to claim 12, wherein the resin is selected from polyolefin resins, polyester resins, polyamide resins, polyvinyl chloride resins, and biodegradable resins.